DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials

Quality Assurance and Source Inspection

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Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 99.28

WELDING INSPECTION REPORT

Resident Engineer: Siegenthaler, Peter **Report No:** WIR-021035 Address: 333 Burma Road **Date Inspected:** 24-Feb-2011

City: Oakland, CA 94607

Project Name: SAS Superstructure **OSM Arrival Time:** 700 **OSM Departure Time:** 1900 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC) Chanxing Island **Location:** Shanghai, China

CWI Name: CWI Present: Yes Mr. Oui Wen No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A **Electrode to specification:** Yes No Weld Procedures Followed: Yes No N/A **Qualified Welders:** Yes No N/A **Verified Joint Fit-up:** Yes No N/A N/A Yes N/A **Approved Drawings:** Yes No **Approved WPS:** No Yes N/A **Delayed / Cancelled:** No

Bridge No: 34-0006 **Component: OBG Segment**

Summary of Items Observed:

On this date Caltrans OSM Quality Assurance Inspector (QA), Vibin Kumar Selvanayaham, was present during the times noted above for observations relative to the work being performed.

Ultrasonic Testing (UT) – NWIT Document No: 008383

This QA inspector performed UT of approximately 10% of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated an UT report for this date. The members are identified as OBG Segment 13BW. The weld designations reviewed are as follows:

- 1. SEG3014C- 061, 062, 065, 066, 069, 070, 073, 074
- 2. SEG3014C-077, 078, 081, 082, 085, 086, 089, 090

Bay 14

This QA Inspector observed the following work in progress:

Shielded Metal Arc Welding (SMAW) repair welding of weld joint SEG3020BB-064 located on Bottom Plate to Vertical Shear Plate of OBG Segment 14W. ZPMC Welder is identified as 067942. ZPMC Quality Control (QC) is identified as Mr. Zhu Lin. The welding variables recorded by QC appeared to comply with the Applicable WPS-345-SMAW-2G-(2F)-FCM-Repair, which is used as per Critical Welding Repair (CWR) B-CWR2-2793.

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SMAW repair welding of weld joint SEG3020BB-010 located on Bottom Plate to Vertical Shear Plate of OBG Segment 14W. ZPMC Welder is identified as 067942. ZPMC Quality Control (QC) is identified as Mr. Zhu Lin. The welding variables recorded by QC appeared to comply with the Applicable WPS-345-SMAW-2G-(2F)-FCM-Repair, which is used as per Critical Welding Repair (CWR) B-CWR2-2793.

Flux Core Arc Welding (FCAW) welding of weld joint SEG3020BB-110 located on Anchor plate to Vertical Shear Plate of OBG Segment 14W. ZPMC Welder is identified as 066695. ZPMC Quality Control (QC) is identified as Mr. Zhu Lin. The welding variables recorded by QC appeared to comply with the Applicable WPS-B-T-2233-ESAB.

FCAW welding of weld joint SEG3020BB-109 located on Anchor plate to Vertical Shear Plate of OBG Segment 13AW. ZPMC Welder is identified as 045175. ZPMC Quality Control (QC) is identified as Mr. Zhu Lin. The welding variables recorded by QC appeared to comply with the Applicable WPS-B-T-2233-ESAB.

SMAW repair welding of weld joint SEG3020D-281 located on Bottom Plate RS stiffener of OBG Segment 14W. ZPMC Welder is identified as 066398. ZPMC Quality Control (QC) is identified as Mr. Zhu Lin. The welding variables recorded by QC appeared to comply with the Applicable WPS-345-SMAW-3G-(3F)-FCM-Repair, which is used as per Welding Repair Report (WRR) B-WRR20251.

SMAW welding of weld joint SEG3020P-029 located on Floor Beam to Anchor Plate at panel point 126 of OBG Segment 14W. ZPMC Welder is identified as 069896. ZPMC Quality Control (QC) is identified as Mr. Sun Tian Liang. The welding variables recorded by QC appeared to comply with the Applicable WPS-B-P-2114-FCM.

SMAW welding of weld joint SEG3020P-030 located on Floor Beam to Anchor Plate at panel point 126 of OBG Segment 14W. ZPMC Welder is identified as 067829. ZPMC Quality Control (QC) is identified as Mr. Sun Tian Liang. The welding variables recorded by QC appeared to comply with the Applicable WPS-B-P-2114-FCM.

SMAW welding of weld joint SEG3020P-044 and 045 located on Edge plate at panel point 126.5 of OBG Segment 14W. ZPMC Welder is identified as 066239. ZPMC Quality Control (QC) is identified as Mr. Sun Tian Liang. The welding variables recorded by QC appeared to comply with the Applicable WPS-B-P-2113-FCM.

SMAW welding of weld joint DP3172-001-018 located on Deck Panel to Deck Panel Diaphragm of OBG Segment 14W. ZPMC Welder is identified as 066155. ABF Quality Control (QC) is identified as Mr. Shen Jian. The welding variables recorded by QC appeared to comply with the Applicable WPS-B-P-2212-Tc-U4b-FCM-1.

SMAW welding of weld joint DP3172-001-019 located on Deck Panel to Deck Panel Diaphragm of OBG Segment 14W. ZPMC Welder is identified as 067588. ABF Quality Control (QC) is identified as Mr. Shen Jian. The welding variables recorded by QC appeared to comply with the Applicable WPS-B-P-2212-Tc-U4b-FCM-1.

SMAW welding of weld joint DP3172-001-217 located on Deck Panel to Deck Panel Diaphragm of OBG Segment 14W. ZPMC Welder is identified as 067588. ABF Quality Control (QC) is identified as Mr. Shen Jian. The welding variables recorded by QC appeared to comply with the Applicable WPS-B-P-2212-Tc-U4b-FCM-1.

SMAW welding of weld joint SEG3015G-151 located on Floor Beam to Deck Panel Diaphragm at panel point 123.

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5 of OBG Segment 13CW. ZPMC Welder is identified as 037996. ZPMC Quality Control (QC) is identified as Mr. Zhang Lin. The welding variables recorded by QC appeared to comply with the Applicable WPS-B-P-2214-Tc-U4b-FCM.

SMAW repair welding of weld joint DP3148-001-247 located on Longitudinal Diaphragm to Deck Panel Diaphragm at panel point 123.5 of OBG Segment 13CW. ZPMC Welder is identified as 45213. ZPMC Quality Control (QC) is identified as Mr. Zhang Lin. The welding variables recorded by QC appeared to comply with the the Applicable WPS-345-SMAW-3G-(3F)-FCM-Repair, which is used as per Critical Welding Repair (CWR) B-CWR2-2781.

SMAW repair welding of weld joint DP3148-001-250 located on Longitudinal Diaphragm to Deck Panel Diaphragm at panel point 123 of OBG Segment 13CW. ZPMC Welder is identified as 45213. ZPMC Quality Control (QC) is identified as Mr. Zhang Lin. The welding variables recorded by QC appeared to comply with the the Applicable WPS-345-SMAW-3G-(3F)-FCM-Repair, which is used as per Critical Welding Repair (CWR) B-CWR2-2781.

SMAW welding of weld joint SEG301B-262 located on Vertical plate to Floor Bean at panel point 120 OBG Segment 13AW. ZPMC Welder is identified as 066002. ZPMC Quality Control (QC) is identified as Mr. Liu Fang. The welding variables recorded by QC appeared to comply with the Applicable WPS-B-P-2213-Tc-U4b-FCM-1.

This QA inspector observed ZPMC personnel performed Ultrasonic Testing on Side Plate I-stiffener to Floor Beam 'T' joint weld at panel point 122.5 of OBG Segment 13CW. The weld number is identified as SEG3015H-266. See the attached pictures.

Unless otherwise noted, all work observed on this date appeared to be in general compliance with the applicable contract documents.





Summary of Conversations:

Only general conversation was held between QA and QC concerning this project.

Comments

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This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact, who represents the Office of Structural Materials for your project.

Inspected By:	Kumar,Vibin	Quality Assurance Inspector
Reviewed By:	Patel, Hiranch	QA Reviewer